

REMARKS

Claims 1-10 are presented for consideration, with Claim 1 being independent.

The specification and abstract have been reviewed and amended to correct minor informalities and improve their idiomatic English form.

Editorial changes have been made to independent Claims 1 and 10 and selected dependent claims.

In amending the specification, a correction has been made on page 8, line 13 as suggested in the Office Action.

Claims 3 was rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the enablement requirement. In response to this rejection, Claim 3 has been amended to recite that the variable member is comprised of a plurality of flexible films linked internally. Support for Claim 3 is shown, for example, in Figure 7. This translational error has also been corrected on page 8, line 3 of the specification. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. §112, first paragraph, is respectfully requested.

Applicants note with appreciation that Claims 2-5, 7 and 8 are indicated as containing patentable subject matter and will be allowed if placed in independent form. These claims remain in dependent form, however, as it is respectfully submitted that parent Claim 1 is patentable in its own right for the reasons discussed below.

Claim 10 stands rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Pauliukonis '645. This rejection is respectfully traversed.

Claim 10 of Applicants' invention relates to a micro valve for changeover of flow channel branches, and comprises a variable member is placed between two pressure generating means. The variable member is transformable between a first stable state and second stable state by the pressure generated.

The Pauliukonis patent relates to a multi-way poppet valve that includes individual stems 5 supported in a housing 22. The stems regulate flow between fluid ports 9 and 11. A thermal electric operator is electrically energized to shift the stem in an axial direction.

In contrast to Applicants' invention, however, Pauliukonis does not relate to a micro-valve. Pauliukonis fails, therefore, to teach or suggest a micro valve that includes a variable member as set forth in Claim 10. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. §102(b) is respectfully requested.

Claims 1, 6, 9 and 10 are rejected under 35 U.S.C. §103 as allegedly being obvious over Sticht '432. This rejection is respectfully traversed.

In Claim 1 of Applicants' invention, a micro liquid delivery device includes a flow channel for flowing the liquid, first and second pressure generating means for generating pressure provided in the flow channel, and a variable member placed between the first and second pressure generating means and having bistability capable of transforming between a first stable state and a second stable state by a generated pressure. As claimed, the variable member is

transformed into the first stable state or the second stable state to select a branch of the flow channel.

In accordance with Applicants' claimed invention, a high performance micro liquid delivery device can be provided.

Sticht relates to a control element that includes a pneumatic valve 2 having a moving element 11 provided therein for regulating flow between a secondary channel 18, and feed channel 15 and exhaust channel 16. Heating devices 35 within the valve create a change in volume within an interior space 33 for axially moving the moving element.

In contrast to Claim 1 of Applicants' invention, however, Sticht does not teach or suggest a micro liquid delivery device that includes a flow channel, first and second pressure generating means and a variable member. Sticht also fails to teach or suggest a micro valve as set forth in Claim 10. Accordingly, reconsideration and withdrawal of the rejection of the claims under 35 U.S.C. §103 is respectfully requested.

Therefore, it is submitted that Applicants' invention as set forth in independent Claims 1 and 10 is patentable over the cited art. In addition, dependent Claims 2-9 set forth additional features of Applicants' invention. Independent consideration of the dependent claims is respectfully requested.

THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

In compliance with the duty of disclosure under 37 C.F.R. §1.56 and in accordance with the practice under 37 C.F.R. §§1.97 and 1.98, the Examiner's attention is directed to the documents listed on the enclosed Form PTO-1449. Copies of the listed Japanese documents are also enclosed.

The concise explanations of relevance for Japanese Document No. 62-091675 is provided by its accompanying English-language abstract.

For the Examiner's information, U.S. Patents No. 6,828,887 and No. 7,070,699 correspond to Japanese Document No. 2004-025437.

The fee of \$180.00 pursuant to 37 C.F.R. §1.97(c) and §1.17(p) is being paid electronically.

It is respectfully requested that the above information be considered by the Examiner and that a copy of the enclosed Form PTO-1449 be returned indicating that such information has been considered.

CONCLUSION

In view of the foregoing, reconsideration and allowance of this application is deemed to be in order and such action is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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